

Place your name on the back of this sheet of paper and nowhere else. Staple your answers face up on the front of this sheet of paper. Failure to follow these directions will cost you 1 point. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to type it will cost you 10 points. If you use double-sided printing or print on the back of scrap paper, I will give you one additional point.

- 1) (10 points) Explain why the slope of the indifference curve is the MRS_{XY} .
- 2) (35 points) Suppose the relative world price of corn is $P_C/P_B = 2$, where B represents boots. Draw two curved PPFs, one for the USA and one for Mexico on different graphs. Draw the two CPF lines corresponding to the world price. Draw the indifference curves for autarky and free trade. Prove that both countries gain from trade and that the American imports equals the Mexican exports. (Hint: it is easiest to first draw the production and consumption points on the two graphs and then put the curves through those points.)
- 3) (20 points) Use a curved PPF/CPF/indifference curve diagram to prove that a small country like Tuvalu gains from partially specializing in one product like shells. Explain how your diagram shows their gains from trade.
- 4) (20 points) Draw a PPF/CPF/indifference curve diagram which shows that when two countries have identical capabilities, it may still be possible for them to gain from trade. Use the USA and China. Have your diagram show us exporting chopsticks and importing cowboy hats. Show both the autarky and free trade points. Explain how the autarky points tell us which goods will be exported by which country and why both countries gain from trade.
- 5) (15 points) Free trade opponents point to the loss of jobs in industries like textiles as to why free trade is bad for the economy. What is wrong with their logic?